

In the Claims:

1. (Currently Amended) A method of forming a semiconductor device, the method comprising:

providing a substrate having a gate electrode formed thereon;

performing a first ion implant wherein the gate electrode acts as a mask;

forming a first spacer on the substrate adjacent to the gate electrode;

forming an etch stop layer on the substrate such that the etch stop layer covers the first spacers and the substrate;

forming a sacrificial spacer on the etch stop layer on the substrate adjacent to the first spacer;

performing a second ion implant wherein the sacrificial spacer and the first spacer acts as a mask;

removing the sacrificial spacer; and

performing a third ion implant wherein the first spacer acts as a mask, the third ion implant being performed through the etch stop layer and the first spacer having substantially the same shape as achieved in the step forming a first spacer, after the removing the sacrificial spacer.

2. (Original) The method of claim 1, wherein the step of forming the first spacer includes forming a dielectric liner on the substrate, forming a first spacer layer, and etching the first spacer layer wherein the dielectric liner acts as an etch stop.

3. (Original) The method of claim 2, wherein exposed portions of the dielectric liner are removed after forming the first spacer.

4. (Original) The method of claim 1, wherein the etch stop layer covers a shallow trench isolation.

5. (Original) The method of claim 1, wherein the third ion implant is performed before the second ion implant.

6. (Original) The method of claim 1, wherein the first spacer comprises a material selected from the group consisting of silicon nitride, silicon oxynitride, silicon oxime, a nitrogen containing material, and a combination thereof.

7. (Original) The method of claim 1, wherein the etch stop layer is an oxide.

8. (Original) The method of claim 1, wherein the sacrificial spacer comprises a material selected from the group consisting of silicon nitride, silicon oxynitride, silicon oxime, a nitrogen containing material, and a combination thereof.

9. (Original) The method of claim 1, wherein the step of forming the sacrificial spacer includes depositing a layer of Si_3N_4 and performing an anisotropic dry etch.

10. (Original) The method of claim 1, wherein the etch stop layer is an oxide formed by chemical vapor deposition techniques.

11. (Previously Presented) The method of claim 1, wherein the step of removing the sacrificial spacer is performed by an etch process using a solution of phosphoric acid.

12. (Currently Amended) A method of forming a semiconductor device, the method comprising:

providing a substrate having a gate electrode and a shallow trench isolation (STI) formed thereon;

forming a lightly doped drain in the substrate adjacent to the gate electrode;

forming a first spacer on the substrate adjacent to the gate electrode;

forming an etch stop layer [[on]] over the substrate, the first spacer, and over the STI;

forming a sacrificial spacer on the etch stop layer adjacent to the first spacer, the etch stop layer preventing damage to the STI;

performing a second ion implant wherein the first spacer and the sacrificial spacer act as a mask;

removing the sacrificial spacer, the etch stop layer preventing damage to the STI; and

performing a third ion implant wherein the first spacer acts as a mask, the third ion implant being performed through the etch stop layer and the first spacer having substantially the same shape as achieved in the step forming a first spacer, after the removing the sacrificial spacer.

13. (Original) The method of claim 12, wherein the step of forming the first spacer includes forming a dielectric liner on the substrate, forming a first spacer layer, and etching the first spacer layer wherein the dielectric liner acts as an etch stop.

14. (Original) The method of claim 13, wherein exposed portions of the dielectric liner are removed after forming the first spacer.

15. (Original) The method of claim 12, wherein the third ion implant is performed before the second ion implant.

16. (Original) The method of claim 12, wherein the step of forming the sacrificial spacer includes forming a sacrificial layer and patterning the sacrificial layer to form the sacrificial spacer by performing an anisotropic dry etch.

17. (Original) The method of claim 16, wherein the step of removing the sacrificial spacer is performed using a solution of phosphoric acid.

18. (Original) The method of claim 12, wherein the sacrificial spacer comprises a material selected from the group consisting of silicon nitride, silicon oxynitride, silicon oxime, a nitrogen containing material, and a combination thereof.

19. (Previously Presented) The method of claim 12, wherein the etch stop layer is an oxide.

20. (Original) The method of claim 19, wherein the oxide is formed by chemical vapor deposition techniques.